REMARKS

Claims 1-22, 33-53, and 64-67 remain for consideration. All remaining claims are thought to be allowable over the cited art.

35 U.S.C. §103

Claims 1-8, 11-25, 27-30, 32-33, 35-56, 58-64, and 66-67 are rejected as being made obvious by the teachings of U.S. Patent No. 6,917,594 to Feuerstraeter et al (hereinafter "Feuerstraeter") in view of U.S. Patent Publication No. 2001/0034209 to Tong et al (hereinafter "Tong") under 35 U.S.C. § 103(a). Applicants respectfully traverse the rejection.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicants' disclosure. (See MPEP § 2142).

Concerning the third criteria which must be met to establish *prima facie* obviousness of a claimed invention, the combination of Feuerstraeter and Tong must be shown to teach or suggest all of Applicants' claimed limitations. However, the Examiner admits that Feuerstraeter fails to teach at least "combining data from two or more portions of a data packet into a single portion, the single portion containing less data than the two or more portions combined to reduce an amount of data transmitted in the data transmission" as set forth in Applicants' Claim 1. Thus, the Examiner admits that Feuerstraeter fails to teach that: 1) the single portion is formed from the combination of two or more portions of a data packet within the transmitting entity; and 2) the single portion contains less data than the two or more portions combined to reduce the amount of data transmitted. The Examiner, therefore, combines Tong with Feuerstraeter to remedy Feuerstraeter's admitted deficiencies because according to

the Examiner, Tong combines data blocks in the transmitter prior to transmission. Applicants disagree.

In particular, the Examiner quotes the teachings of Tong from paragraph [0047], in which Tong teaches that "the data transmission rate is simply decreased for subsequent retransmissions of data and optionally a portion of the transmission block of the initial data packet is combined with that transmission block portion in later transmitted data packets." The Examiner, however, misconstrues the teachings of Tong because Tong does not teach that transmission blocks are combined in the transmitter prior to transmission. Rather, Tong teaches that transmission blocks are combined in the receiver, as opposed to being combined in the transmitter, which is in contradistinction to Applicants' claim 1.

In particular, Tong uses the term "transmission" to represent a block of data received by the receiver. Tong's receiver then decodes the transmission block, which includes block A^0 and B^0 in the first transmission, as illustrated in Tong's FIG. 3. (See step 402 of FIG. 4; the first sentence in paragraph [0055]; and the first sentence in paragraph [0048]). If the decoding of the first transmission block is not successful, as determined in step 404 of Tong's FIG. 4, then Tong's receiver stores the first transmission block in step 406 and requests that the transmitter send the data again. (See the last two sentences in paragraph [0055]).

Tong's transmitter then resends the first transmission block as block A^1, i.e., the first retransmission, at a lower data rate as illustrated in Tong's FIG. 3. (See paragraph [0056]). The first transmission, A^0, and the first retransmission, A^1, are then combined by the receiver to generate a first combination, A^0+A^1, as in step 408 of Tong's FIG. 4. (See the first sentence in paragraph [0057]). Tong more specifically teaches in the second and third sentences of paragraph [0057] that "the receiver upon receiving a transmission of the transmission block or portion of a transmission block will generate a soft estimate for each of the bits of the transmission block or portion. In combining A^0 and A^1, the soft estimates of the respective bits of A^0 and A^1 are added in a weighted sum, and thus the first combination of the first transmission block portion is generated." (Emphasis added). It can be seen, therefore, that Tong's receiver, as opposed to Tong's transmitter, combines the data blocks.

Thus, when the Examiner quotes Tong's passage from paragraph [0047], namely "a portion of the transmission block of the initial data packet is combined with that transmission block portion in later transmitted data packets," the Examiner is quoting passages from Tong that describe the operation of Tong's receiver. Such operation is in contradistinction to Applicants' Claim 1 because Applicants' Claim 1 requires "combining data from two or more portions of a data packet ... to reduce an amount of data transmitted in the data transmission." (Emphasis added). In other words, Applicants' claim 1 requires that the data be combined in the transmitter, as opposed to being combined in the receiver, as taught by Tong.

Furthermore, Applicant's Claim 1 requires that the combination of two or more portions of a data packet is required to reduce the amount of data that is transmitted in the data transmission. Tong, however, teaches no such requirement. Instead, Tong transmits the same amount of data in each transmission and merely reduces the transmission rate so as to reduce the Eb/N_0 that is required to achieve a certain bit error rate. (See FIG. 3 and the last sentence in paragraph [0047]).

Applicants respectfully submit, therefore, that not only does Feuerstraeter fail to teach "combining data from two or more portions of a data packet into a single portion, the single portion containing less data than the two or more portions combined to reduce an amount of data transmitted in the data transmission" as recited in Applicants' Claim 1, but Tong similarly fails to teach such limitations as discussed above. Claim 1, therefore, patentably distinguishes over the combination of Feuerstraeter and Tong and is in condition for allowance. Independent Claims 15, 33, 37, 46, and 64 set forth similar limitations as those set forth in Claim 1. Applicant respectfully submits, therefore, that independent Claims 15, 33, 37, 46, and 64 are also in condition for allowance for at least the same reasons as discussed above in relation to Claim 1.

Dependent Claims 2-8, 11-14, 16-22, 35-36, 38-45, 47-53, and 66-67, which are dependent from independent Claims 1, 15, 33, 37, 46, and 64, respectively, are also rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Feuerstraeter and Tong. While Applicants do not acquiesce to any particular rejections to these dependent claims, it is believed that these rejections are now moot

in view of the remarks made in connection with independent Claims 1, 15, 33, 37, 46, and 64. These dependent claims include all of the limitations of the base claims and any intervening claims, and recite additional features which further distinguish these claims from the cited references. Therefore, dependent Claims 2-8, 11-14, 16-22, 35-36, 38-45, 47-53, and 66-67 are also allowable over the combination of Feuerstraeter and Tong.

Claim 37 is rejected under 35 U.S.C. § 103(a) as being made obvious over the combination of U.S. Patent No. 6,266,701 to Sridhar in view of Tong. Applicants respectfully traverse the rejection.

Concerning the third criteria which must be met to establish *prima facie* obviousness of a claimed invention, the combination of Sridhar and Tong must be shown to teach or suggest all of Applicants' claimed limitations. However, the Examiner admits that Sridhar fails to teach at least "combining data from two or more portions of a data packet into a single portion, the single portion containing less data than the two or more portions combined to reduce an amount of data transmitted in the data transmission" as set forth in Applicants' Claim 37.

As such, the Examiner combines Sridhar with Tong to remedy Sridhar's deficiencies. As discussed above, however, Tong suffers from the same deficiencies. Applicants respectfully submit, therefore, that independent Claim 37 patentably distinguishes over the combination of Sridhar and Tong and is in condition for allowance.

Claims 9-10 are rejected as being made obvious over the combination of Feuerstraeter in view of Computer Networks by Andrew S. Tanenbaum (hereinafter "the Article") under 35 U.S.C. § 103(a). Applicants respectfully traverse the rejection.

As discussed above, the Examiner admits that Feuerstraeter fails to teach "combining data from two or more portions of a data packet into a single portion, the single portion containing less data than the two or more portions combined to reduce an amount of data transmitted in the data transmission." The Article, however, has not been shown to remedy the admitted deficiencies of Feuerstraeter with respect to Claim 1. Accordingly, the combination of Feuerstraeter with the Article suffers from at least the same deficiencies with respect to Claims 9-10, since Claims 9-10 depend

from Claim 1. Thus, Claims 9-10 patentably distinguish over the combination of Feuerstraeter and the Article and are in condition for allowance.

Claims 34 and 65 are rejected as being made obvious by Feuerstraeter in view of U.S. Patent No. 6,618,360 to Scoville et al (hereinafter "Scoville") under 35 U.S.C. § 103(a). Applicants respectfully traverse the rejection.

As discussed above, the Examiner admits as to the deficiencies of the teachings of Feuerstraeter in relation to independent Claims 33 and 64, namely that Feuerstraeter fails to teach "combining data from two or more portions of a data packet into a single portion, the single portion containing less data than the two or more portions combined to reduce an amount of data transmitted in the data transmission." Scoville, however, has not been shown to remedy the admitted deficiencies of Feuerstraeter with respect to independent Claims 33 and 64. Accordingly, the combination of Feuerstraeter with Scoville suffers from at least the same deficiencies with respect to Claims 34 and 65, since Claims 34 and 65 depend from Claims 33 and 64, respectively. Thus, Claims 34 and 65 patentably distinguish over the combination of Feuerstraeter and Scoville and are in condition for allowance.

CONCLUSION

Reconsideration and a notice of allowance are respectfully requested in view of the remarks presented above. If the Examiner has any questions or concerns, a telephone call to the undersigned is invited.

Respectfully submitted,

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I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent and Trademark Office on March 21, 2008.

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